

## THE SCARABAEID GENUS *Geotrupes* AND ITS TYPE (Coleoptera)

BY ROBERT W. L. POTTS

*California State Department of Agriculture,  
San Francisco*

In checking early references to *Geotrupes* for a proposed general paper on the genus it quickly appeared that the present use of the name is questionable. Important references and the facts are as follows, along with my personal interpretations and conclusions:

1796. Latreille (Préc. Car. gén. Ins., p. 6) proposed the generic name *Geotrupes* as new, with the following description: "Antennes de onze articles. Lèvre supérieure avancée. Mandibules fortes. Lèvre inférieure à deux divisions allongées. C. H. Chaperon rhomboidal. Écusson. Jambes antérieures dentelées." There were no species names, descriptions, nor bibliographic references to species included with this description.
1798. Fabricius (Suppl. Ent. Syst., p. A, pp. 7-22) under the name *Geotrupes* gave a description of the genus that does not at all parallel that of Latreille, and listed 63 species, most of which are now placed in the Dynastinae, with only 5 belonging in the present Geotrupinae, one of these being *dispar*. Elsewhere (pp. 2, 23-24) species are listed under the name *Scarabaeus* which are now considered to be *Geotrupes*.
1801. Fabricius (Syst. Eleuth., pp. 2-26) adds further species to both *Geotrupes* and *Scarabaeus*, still preserving his concept of the two genera.
- 1802.\* Latreille (Hist. Nat. Crust. Ins. ed. 1802) lists two species under the name *Geotrupes*, in order, *stercorarius* and *vernalis*.
1804. Latreille (Hist. Nat. Crust. Ins., 10:142-147) lists *dispar*, *typhoeus*, *mobilicornis*, *stercorarius*, *sylvaticus*, and *vernalis* in the genus *Geotrupes*. In his introduction to the genus he says: "J'avois posé les bases de ce genre dans mon ouvrage intitulé (Précis des caractères génériques des Insectes), ou, pour parler plus vrais, je n'avois fait que donner un denomination à la seconde coup des scarabees d'Olivier, car ce naturaliste avait exposé tous les caractères de ce genre avant moi. Fabricius, en adoptant ce travail, a fait malheureusement une transposition de noms; mes scarabées sont devenus des gèotrupes, et mes gèotrupes, des

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\*I have not personally checked this reference, but accept it on the authority of Arrow (personal letter).

scarabées. Ce changement n'étant pas fondé, on me permette de n'y avoir pas égard."\*

There is no question of responsibility for the name *Geotrupes*, as Opinion 46 of the International Code states, "If an author clearly shows that the name he proposed is to be applied in a generic sense . . . the name in question becomes available under the Code . . . although he may have failed to name the species." While Latreille did so fail, he clearly indicated that the name was new, and that it was to be applied in a generic sense.

We are next faced with the problem of the genotype, since Latreille forfeited his first opportunity to state what species belonged in his new genus.

Opinion 46 also states, "In numerous instances authors have proposed new genera, but have failed to mention by name any species . . ." These cases are then divided into several general categories, of which the 5th group is clearly the one applicable to the present case: "(5) and there are instances in which an author has described a genus, clearly giving generic characters, but . . . from the original publication it is not clear how many species (none of which he mentioned by name) were included in the genus. Each new genus therefore, contains all of the species of the world which come in that category in the tables; . . . if at the second, third, or tenth publication one or more species are mentioned, those are the only species which become available as type, and if only one were mentioned this would be the type. In other words, in genera belonging to the fifth category, the first species published as member or members of the genus are the only species available as type."

Fabricius, in 1798, was the second to use the name *Geotrupes*, and under ordinary circumstances, would be considered the "first reviewer." However, it may be argued that his is an altogether different genus, since his description does not coincide with that of Latreille. Nevertheless, among the heterogeneous mixture of species he included there is one, *dispar*, which fits Latreille's description with the questionable exception that a clypeal horn obscures the basically rhomboidal nature of the clypeus. Ignore the horn and this character, too, checks perfectly. Indeed, Latreille

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\*A free translation runs: "I have proposed the basis for this genus in my work entitled *Précis des caractères génériques des Insectes*, or, to be more precise, I have only given a name to the second group of scarabs of Olivier, since this naturalist has pointed out all the characters of the genus before me. Fabricius, in adopting this work, has unhappily made a transposition of names; my scarabs are become his geotrupids, and my geotrupids his scarabs. This change is without foundation, permitting me to entirely ignore it."

himself heads his 1804 list with *dispar*. Jekel, in his 1865 (1866) monograph of *Geotrupes* names *dispar* as the genotype of the subgenus *Ceratophyus*, a subgenus now usually accorded the status of a genus.\* Arrow, in reviewing the Fabricius list at my request says, “. . . the nearest to *Geotrupes* in the true sense is *dispar*, now called *Ceratophyus*.”

However, let us first consider the two alternative suggestions that can be made: (1) that Fabricius' use of *Geotrupes* and *Scarabaeus*, as suggested by Latreille, was a transposition, a *lapsus calami*. In consequence, his names should be straightened out, and one of his species under *Scarabaeus*, since they will fit Latreille's description, must become the genotype, and *stercorarius* is not among the seven species there listed. So this, too, would require a change. It seems to me that a *lapsus calami* is highly improbable. Fabricius cites both *Geotrupes* and *Scarabaeus* in two different places in 1798 and reuses them both, in the same sense, in 1801. An inadvertent error should undoubtedly have been noticed when so often repeated.

Or, (2), Fabricius published his 1798 *Geotrupes* without knowledge of Latreille's use of the name, intending it as a new genus. In such a case the name would fall as a homonym, and he has been anticipated in his restriction of the genus *Scarabaeus*. Consequently the *Geotrupes* of Latreille is unaffected and the second publication of the genus, under the Code, is in 1802, and Latreille was within the Code in his selection of *stercorarius* as his genotype in 1810. While this is a simple, and possible solution, it also seems highly improbable even though our present use of *stercorarius* as the type tacitly implies that this explanation has been followed ever since Latreille's 1804 and 1810 publications. However, Fabricius did not indicate that his use of *Geotrupes* was new nor did he indicate a typical species as he occasionally did with his new genera, and as he did with other valid new genera in the same publications. While personal opinions in such a case as this are probably valueless, I cannot believe that Fabricius worked in ignorance of Latreille any more than Latreille worked in ignorance of Fabricius. Furthermore, the burden of proof should be to the effect that Fabricius intended his name as new and I can find no such proof whatever.

And finally, both these alternatives hinge upon our ability to interpret the intent of a worker long dead, who never explained

\*That *dispar* has been used as a genotype does not eliminate it from consideration. See Article 62 of the Code, which specifically applies to this point.

his intentions in this case. The only pertinent information we have, from Latreille's 1804 publication, must be considered as both prejudiced and ambiguous since it presumes a *lapsus calami*, but treats as though a homonym had been created.

If neither of these alternatives is acceptable, and I believe they are not, then the citation of an acceptable species, *dispar*, in the 1798 publication of *Geotrupes* must stand. This species becomes the genotype by monotypy, and Latreille's 1810 selection of *stercorarius* is irrelevant.

Therefore *Ceratophyus* must fall as a synonym of *Geotrupes*, and that genus, or subgenus, of which *stercorarius* is the type is left nameless.

While this maintains the subfamily Geotrupinae in its present sense it does considerable violence to our concept of *Geotrupes*, a concept based on *stercorarius* as the type, a concept which has now held for almost a hundred and fifty years, a concept which is clearly the same as that originally held by Olivier and given a generic name by Latreille.

Since it appears impossible to maintain our century and a half old concept of *Geotrupes* under the Rules, I am submitting the matter to the International Commission, with the recommendation that, under their plenary powers the rules be set aside in the case of *Geotrupes*, and that *stercorarius* be declared its official type.

Should the Commission rule against this petition, then will be ample time to propose a new name for the genus, or subgenus of which *stercorarius* is the type.

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NEW RECORDS OF *PONERA TRIGONA* VAR. *OPACIOR*  
FOREL

(Hymenoptera: Formicidae)

Since this primitive ant has been recorded previously from only two California localities, the following collections are of considerable interest: found in moist soil, Sigmund Stern Grove, San Francisco, February 25, 1946, Potts and Ting colls. (8 workers in the author's collection); Sacramento, October 16, 1941, Bachman coll. (3 winged females, in the collection of the State Department of Agriculture); Pinon Flat, San Jacinto Mountains, May 27, 1939, Ross coll. (2 workers, in the University of California collection). In connection with the previous records, from Bakersfield and Weed, it would appear that this ponerine species is widely distributed if not common within California.—ROBERT W. L. POTTS.